

Abstract

The present invention is related to a process for the production of a powder of niobium monoxide (NbO) having a high purity, large specific surface area, controlled oxygen and nitrogen contents and a morphology adequate for use in the manufacture of capacitors, characterized by comprising two niobium pentoxide (Nb_2O_5) reduction steps, the first step comprising reducing, by hydrogen, the niobium pentoxide (Nb_2O_5) to niobium dioxide (NbO_2), and the second step comprising reducing niobium dioxide (NbO_2) to niobium monoxide (NbO), by using an oxygen getter material in a convenient atmosphere which permits the transfer of the oxygen atoms from the niobium oxide (NbO_2) to the getter material, under adequate conditions of time and temperature to form the niobium monoxide (NbO). The particles of powder of niobium monoxide (NbO) produced using the instant process are small, have a large surface area and an appropriate morphology, and are adequate for the production of capacitors.